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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,065	03/16/2004	Moon Gul Choi	1002-001	3774

7590 10/31/2005  
CRISWELL CHOI  
1042 FERNLEAT DR.  
SUNNYVALE, CA 94086

EXAMINER

EDMONDSON, LYNNE RENEE

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/802,065

Applicant(s)

CHOI ET AL.

Examiner

Lynne Edmondson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15-25 is/are rejected.
- 7) ☒ Claim(s) 14 and 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Objections***

1. Claim 10 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 10 teaches the hollow metal wire formed from a metal fabric.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-12 and 15-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kent et al. (USPN 5305941) in view of Vanyi (USPN 3580462).

Kent teaches a desoldering sheath (14), comprising a hollow metal wire formed from a metal fabric, which may be coiled (col 6 lines 4-12 and lines 24-34), coated with adhesive (flux) and conformed to the tip of desoldering iron or gun (figures 3, 4, 7, 14, 16, abstract and col 8 lines 7-18). Although figure 14 shows a square shaped tool with the wick, there is no disclosure of a hollow wire shaped wick attached to a tool tip or of different tool shapes. Neither is welding or a grommet disclosed.

Vanyi teaches a desoldering tip comprising a hollow metal wire (62) or plurality of metal wires (50,78) forming a tip (figures 1-7 and col 5 lines 16-52) of a soldering gun or iron (col 3 line 70 – col 4 line 5) wherein the tip has a variety of shapes including cone shaped, edge shaped, square, round or angled (figures 1, 3, 4, 6a, and 27-29). The wire may comprise coiled wire (figure 10 and col 5 line 62 – col 6 line 5) or plurality of parallel wires, which are cut into a V-shape and joined together by known methods such as coating with a bonding material or welding (col 5 lines 52-61) and affixed with a grommet (28) and fastener (32) (figure 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention that tool tips come in a variety of shapes and that coiled metal fabric conforming to a tip of a different shape such as an angle or cone would be an obvious variation of the covered square tip. A grommet and fastener would facilitate connection of the wick and tip to the tool.

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kent et al. (USPN 5305941) in view of Vanyi (USPN 3580462) as applied to claim 12 above, and further in view of Forsha (USPN 5083698).

Kent teaches a desoldering sheath (14), comprising a hollow metal wire formed from a metal fabric, which may be coiled (col 6 lines 4-12 and lines 24-34), coated with adhesive (flux) and conformed to the tip of desoldering iron or gun (figures 3, 4, 7, 14, 16, abstract and col 8 lines 7-18). Although figure 14 shows a square shaped tool with

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the wick, there is no disclosure of a hollow wire shaped wick attached to a tool tip or of different tool shapes. Neither is welding or a grommet disclosed.

Vanyi teaches a desoldering tip comprising a hollow metal wire (62) or plurality of metal wires (50,78) forming a tip (figures 1-7 and col 5 lines 16-52) of a soldering gun or iron (col 3 line 70 – col 4 line 5) wherein the tip has a variety of shapes including cone shaped, edge shaped, square, round or angled (figures 1, 3, 4, 6a, and 27-29). The wire may comprise coiled wire (figure 10 and col 5 line 62 – col 6 line 5) or plurality of parallel wires, which are cut into a V-shape and joined together by known methods such as coating with a bonding material or welding (col 5 lines 52-61) and affixed with a grommet (28) and fastener (32) (figure 1).

However neither reference teaches wire gauge.

Forsha teaches a metal wicking fabric comprising 40, 42 and 44 gauge wires, which have a diameter of 0.08 to 0.12 mm (col 3 lines 47-58).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use a fine wire gauge of 0.01 to 0.1 mm which would be less than or equal to the size of the opening in the weave and thereby provide the ability to soak up a large volume of solder in a short period of time (Kent, col 4 line 61 – col 5 line 8).

***Allowable Subject Matter***

5. Claims 14 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: The closest prior art teaches a weave of more than 5 metal threads and the thread size is considerably smaller than the size of a grommet capable of attaching the tip to a soldering/desoldering tool. See Kent.

***Response to Arguments***

7. Applicant's arguments with respect to claims 1-9 and 15-26 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kaneko (US 2002/0153404 A1, tip shapes), Bertram et al. (USPN 5072874), Hood, Jr. (USPN 3627191, rosin), Fortune (USPN 3263889, grommet), Nicosia (USPN 3881087, wire), Spirig (RE 32086) and Chaikin (USPN 4137369).

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynne Edmondson whose telephone number is (571) 272-1172. The examiner can normally be reached on Monday through Thursday from 6:30 a.m. to 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lynne Edmondson  
Primary Examiner  
Art Unit 1725

*LEE*  
*10/17/05*

LRE